

Application No.: 10/587,498

Amendment and Response dated September 9, 2009

Reply to Final Office Action of March 11, 2009

Docket No.: 903-196 PCT/US/RCE

Page 2

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the subject application, and please amend the claims as follows:

1. (Currently amended): A process for inducing and/or accelerating at least one phase transformation in ~~molecular~~ solid[[s]] ~~comprising~~ organic molecules ~~or which are of organic origin, wherein the~~ ~~molecular~~ solid [[is]] ~~organic molecules are~~ subjected to a tribocatalytic treatment to result in a phase transformation of the solid organic molecules, and wherein the phase transformation is achieved essentially by means of transmission of high kinetic energies.
2. (Previously presented): The process as claimed in claim 1, wherein the phase transformation is achieved essentially by means of transmission of high mechanical energies.
3. (Previously presented): The process as claimed in claim 1, wherein the phase transformation is achieved essentially by means of transmission of high kinetic energies of 35 g to 50 g and higher.
4. (Previously presented): The process as claimed in claim 1, wherein the transformation is to a crystalline phase.
5. (Previously presented): The process as claimed in claim 1, wherein the phase transformation is induced at the interfaces of the solid.
6. (Previously presented): The process as claimed in claim 1, wherein the transformation takes place between two polymorphs.

Application No.: 10/587,498

Amendment and Response dated September 9, 2009

Reply to Final Office Action of March 11, 2009

Docket No.: 903-196 PCT/US/RCE

Page 3

7. (Previously presented): The process as claimed in one claim 1, wherein the transformation takes place from an amorphous or glasslike phase to one or more crystalline phases.

8. (Previously presented): The process as claimed in claim 1, wherein a solid not present in phase-pure form is converted to a phase-pure polymorph.

9. (Canceled)

10. (Currently amended): The process as claimed in claim 1, wherein the solid[[s]] organic molecules are mixtures of inorganic and solid organic molecules.

11. (Previously presented): The process as claimed in claim 1, wherein a semicontinuous process is effected.

12. (Previously presented): The process as claimed in claim 1, wherein it is effected under a defined atmosphere.

13. (Previously presented): The process as claimed in claim 1, wherein it is effected under a defined pressure.

14. (Previously presented): The process as claimed in claim 1, wherein it is effected under temperature control.

15. (Previously presented): The process as claimed in claim 1, wherein the solid possesses a greater density after the phase transformation.

16. (Currently amended): A method of using high-energy mills for performing phase transformations comprising:

providing a high energy mill,

providing a ~~molecular~~ solid comprising organic molecules ~~or which are of organic origin~~, and

subjecting the ~~molecular~~ solid organic molecules to a tribochemical treatment,

wherein the phase transformation is achieved essentially by means of transmission of high kinetic energies.

17. (Previously presented): The method of claim 16, wherein transmission of high kinetic energies includes providing grinding media moving at a velocity of 14 m/s and greater in the high energy mill.

18. (Currently amended): A method of inducing or promoting a phase transition in an active pharmaceutical ingredient comprising:

providing an active pharmaceutical ingredient; and

transmitting high kinetic energies to an the active pharmaceutical ingredient;

wherein the phase transformation is achieved essentially by means of transmission of high kinetic energies.

19. (Currently amended): A method of inducing or promoting a phase transition in co-crystal comprising:

providing a co-crystal; and

Application No.: 10/587,498

Amendment and Response dated September 9, 2009

Reply to Final Office Action of March 11, 2009

Docket No.: 903-196 PCT/US/RCE

Page 5

transmitting high kinetic energies to [[a]] the co-crystal;  
wherein the phase transformation is achieved essentially by means of transmission of  
high kinetic energies.

20. (New): A method of inducing or promoting a phase transition in an organic molecule comprising:

providing an organic molecule; and

transmitting high kinetic energies to the organic molecule to effect a phase transformation of the organic molecule;

wherein the organic molecule after phase transformation has a phase which is a co-crystal.

21. (New): A method of inducing or promoting a phase transition in an organic molecule comprising:

providing an organic molecule; and

transmitting high kinetic energies to the organic molecule to effect a phase transformation of the organic molecule,

wherein the phase transition is to a crystalline phase and the organic molecule in the crystalline phase is a co-crystal.